

AMATEUR CINE

W O R L D

JUNE — AUGUST, 1946

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SHOWS WITH ONE
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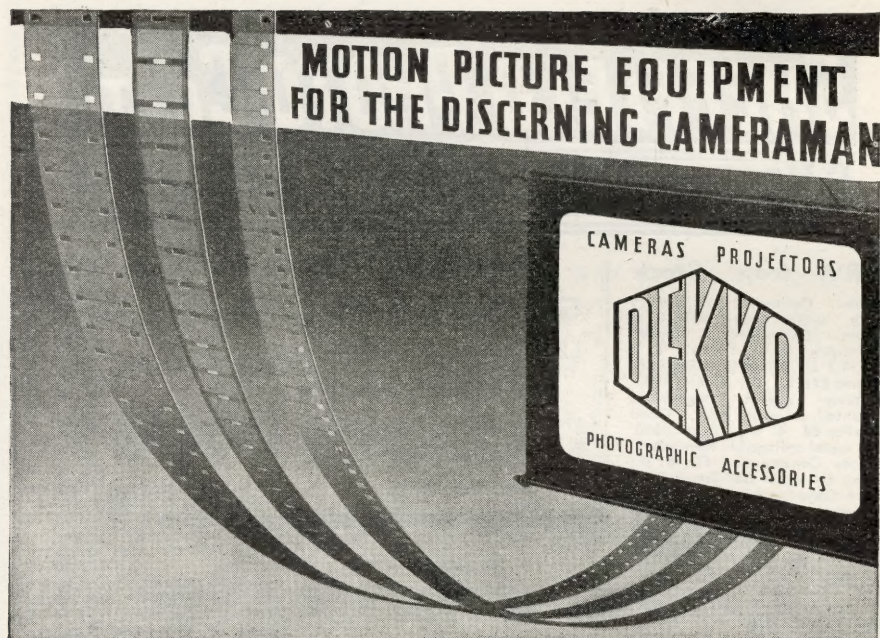
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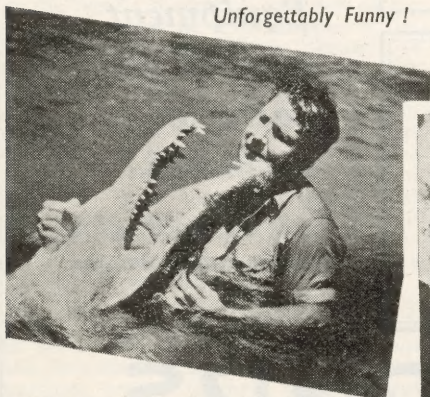
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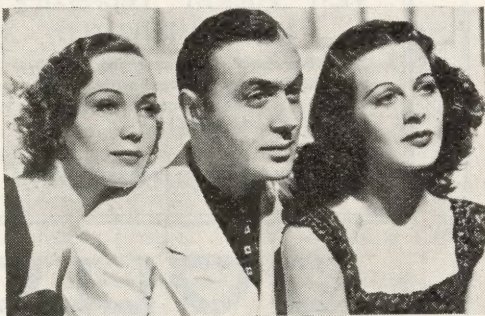
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AMATEUR CINE

W O R L D

Incorporating "Miniature Camera World"

SUMMER
JUNE—AUGUST, 1946
VOL. II. No. 11
(Old Series, Vol. X, No. 8)

THE ONLY JOURNAL SOLELY DEVOTED TO SUBSTANDARD CINEMATOGRAPHY.

AMATEUR CINE WORLD is published quarterly
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GORDON S. MALTHOUSE, Editor

Post - War Review

LES Membres de la 'Section de Cinema d'Amateur' vous prient de leur faire l'honneur d'assister à la soirée de projection et de discussion de leurs films . . ."

It is a nicely printed invitation, 'à presenter à l'entrée,' admitting two, and on the back is the programme: one 8mm. film, "Journées de Libération," one 9.5mm. and three 16mm.

And here is an invitation, also printed, from another society, to a 'Presentation Privée de films d'amateurs qu'elle organise, 31, Avenue Pierre Premier de Serbie, à Paris'; on the back, the programme of three 8mm. films and three 16mm.

Special performances signalling the revival of the French amateur movement? No, just the regular bi-monthly meetings of the Société Française de Photographie et de Cinématographie and of the Société de Cinema d'Amateur. They seem to order these things better in France.

The quickening tempo of the resumption of activities of the British clubs (for the first time since the war we are happy to have received enough reports to print them in alphabetical order—page 398) suggests that this is a suitable time to enquire into the amateur film situation overseas. since the cine organisations in most European countries are starting again virtually from scratch.

In France it has already made big strides forward, but even during the occupation it was not entirely moribund. Club meetings were forbidden, although an administrative committee limited to three members was permitted to function to watch over the financial aspects of the principal societies. Needless to say, the ban was evaded. Development of amateur films was reserved exclusively for the Wehrmacht, but, writes A.C.W.'s correspondent, M. Andre Pagety, of the Société de Photographie de l'Administration des Finances, raw stock was somehow found and firms who would process it.

Then, at the beginning of 1944, as a result of repeated representations by the Organising

Committee of the French Cinematograph Industry, the Germans permitted the re-opening of two of the best-known clubs, the C.A.C.F. and the S.F.P.C., although programmes had to be submitted for censorship. From this time the movement was able to get going openly, so that after the liberation it quickly forged ahead.

In many respects, therefore, the French movement has been able to progress more rapidly than the British, and although materials are still very scarce and prices high, enough prototypes of new equipment have been assembled to make possible a cinematograph section in the Paris Fair held in the autumn of last year and a photographic and cine exhibition in April of this year.

A marked feature of these exhibitions has been the rise of 16mm. and the eclipse of 9.5mm. by 8mm.—this in the home of 9.5mm. Its lost lead is largely explained by the fact that the stock now costs nearly as much as 16mm. 9.5mm. Gevaert which could be had for 275fr. with processing rights, for 30ft., now—because of the devaluation of the franc—costs 450fr.

New 9.5mm. equipment, however, is being produced, and a bid is obviously being made to recover the supremacy of this gauge. Pathe announces a Motocamera with interchangeable lens and a new type of claw, and a 9.5mm./16mm. camera with brilliant and reflex viewfinder. A small 60 watt projector, hand-driven, will also be available.

L'Office General de la Cinematographie Française has a 16mm. projector which can be adapted for 750 arc light. The French company, Hortson, has applied 35mm. technique in the production of its new 16mm. projector, the Aiglon, which incorporates a Maltese cross and which also takes arc or incandescent. The Ericsson projector has a mercury-vapour lamp. The S.86 is a tri-film projector (8mm., 9.5mm. and 16mm.) with interchangeable lamphouse to take 500, 750 and 1,000 watt. lamp. (1,000 watts. for 8mm.

Non-Stop Two Hour Shows with One Projector

and other Professional Results from 16mm. Equipment

By P. BATEMAN, M.A.

OUR school projector, a 16mm. Bell Howell model 138, was used a good deal during the war when we were evacuated to a West Country village with no cinema. We gave weekly shows of 2½ hours' duration, with Sunday performances for the troops. In five years, over 700 films were shown, and during that time we evolved a number of modifications to the machine to bring our results nearer the professional standard.

The first great drawback to be overcome was the need to stop the film in order to change spools every 45 minutes. We got over it by the following method which enabled non-stop shows up to 2½ hours to be put on. It has been operated scores of times without a single failure by schoolboy projectionists.

A large spool is made of plywood, with a solid oak centre, sufficient to hold about 4,000ft. of film—i.e., about 22in. diam. This forms the front spool and must be mounted either on a bridge built on to the projector case, or on the projection booth wall if the installation is not meant to be portable.

The square axle of the spool arm will need lengthening; it can be built up with solder and will last a long time. The spool is fitted with sheet iron plates one each side, in which are square holes to form a bearing. The front belt of the machine is removed and a friction brake can be made to replace it out of a stout cord tensioned with a spring or catapult elastic.

It is impossible to wind up through a slipping clutch on a 4,000ft. spool, so the rear spool must be changed every 1,600ft. without stopping the machine. All that is necessary is to cut a rectangular hole in the base of the projector case and mount the projector over a felt lined box. Then when the rear spool is full, the film is broken at a join and the advancing end is held in the hand while the rear spool is changed.

The end is threaded on the empty spool and by now some 20 to 30 feet of film will have descended in a long loop into the box. It is only a matter of a few seconds by hand braking to allow the rear spool to wind up

this surplus film and "catch up" with its job. A window and electric light in the film bin are a convenience.

The spring-loaded jockey pulley will take up any shock at the end, though with a little practice there is none. As an additional safeguard, an extra spring-loaded jockey pulley can be fitted outside the back of the case.

To make the join easy to find quickly, one can insert 1 inch of white film when spooling up, but this is not essential.

The felt box has the advantage that the rear spool can be stopped for film examination at any time during the show and, in particular, a faulty spool not winding up properly can be changed without the audience being aware of anything amiss. A broken rear belt can also be changed non-stop. To prevent the film rubbing on the machine during the change a loose film pulley was fitted at X (see diagram).

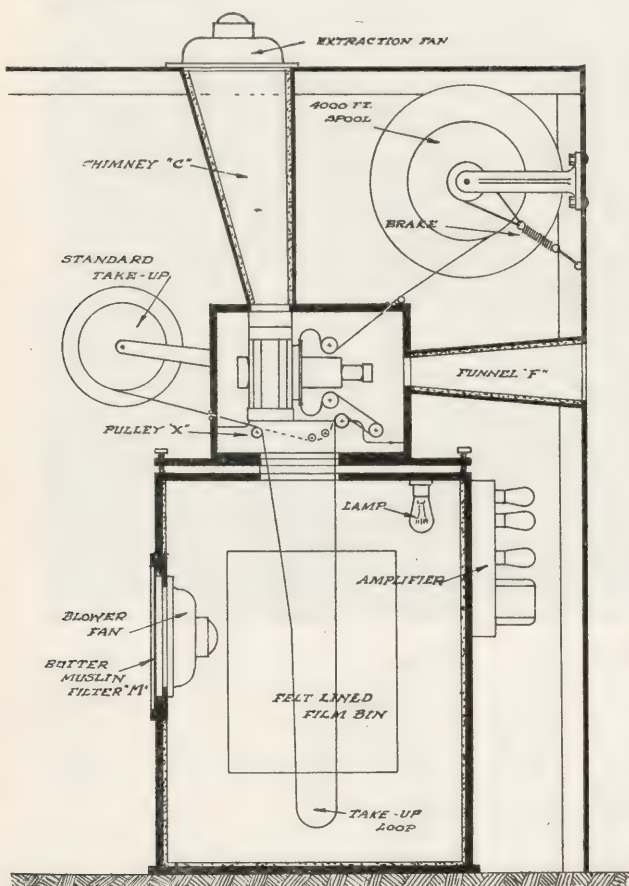
Lamp Life

We have reduced the number of stoppages for lamp replacement and incidentally, more than doubled the average lamp life, as follows:—

The lamphouse top cover was removed and a tapered metal tube T fitted to lead the hot air into the chimney C. This is about 9in. square, of wood, and contains a small fan. Cold air is also blown up through the lamphouse from the film bin below by a fan in the rear wall. The extra ventilation thus produced keeps the lamp and machine cool even on long runs.

We keep new lamps for long films, changing them to older ones for use on shorts where a stoppage would matter less. We have also fitted a lamp rheostat in our separate control switchboard so that we can economise on the main lamp during rehearsals, etc., by running it under low voltage.

Owing to large variation in the supply voltage, we found it necessary to fit a mains rheostat, but even so enough control could not always be obtained. We therefore bought a 4-way snap-action switch (as used



on electric cookers) and by its means can switch instantly from one transformer input voltage socket to another without interrupting the show while we step the voltage up or down.

Noise Reduction

It is a fact that sound cannot travel through a long tube with sound absorbent walls. Thus by lining the chimney with thick felt we cut off much of the mechanical noise which would otherwise escape into the projection booth. Sound emitted via the lens aperture is absorbed by the felt lining of a plywood funnel (F) fitted between blimp and projection booth window.

To avoid opening the blimp door too often, a smaller door was made in the former through which dust can be blown out of the gate, etc., during projection, and a slot was

also cut through which projects a focussing lever clamped to the lens. (The original blimp was replaced by a larger one, more heavily damped and with a removable back.)

The whole case was mounted on sheet sorbo rubber on a board fitted with tilting screws (fore and aft, right and left); this in turn was felt-insulated from the film bin below, which, in turn, stands on felt-lined feet.

Dust

The accumulation of fine dust in the machine (especially with extra ventilation) clogged the safety shutter used in still pictures. Since the main lamp can be dimmed for stills, the shutter is unnecessary and was removed. All air entering is now filtered by passing through two sheets of butter-muslin (M) which have been soaked in thick oil.

Electric Governor

The points became pitted after a time and gave rise to much sparking. We found that with 90 volts on the motor instead of 110 v. the governor has little to do and the machine runs equally well with or without it.

Mechanical vibration of both the photo-cell and exciter lamp causes background noise.

Both can be reduced by the use of sorbo rubber or other padding. We bolted a piece of plywood about 6 x 3 in. to the baseboard on which the projector stands. The holes are slotted to allow for adjustment. A sorbo rubber block about 2 in. is glued to the plywood, and another piece of plywood to which is bolted a lead block about 1/2 in. thick is glued to the top of this. The inertia of this block prevents rapid vibration being transmitted to the p.e.c. mounted in it.

Photo-cells vary, and it is convenient to be able to change them in a few seconds. We are able to do this because (a) the rear of the blimp case is removable and (b) we cut a hole in the projector body about 3 in. square just over the p.e.c. In use, this hole is covered by a copper plate which can quickly be removed for changing and comparing p.e.c.'s.

NON-STOP TWO HOUR SHOWS (cont'd)

Smoothing Condensers

Electrolytic condensers are none too reliable and were housed originally in the loudspeaker—rather inaccessibly. We moved these to the projector end, doubled the voltage by using pairs in series, and fitted flashlamp bulb fuses and a spare pair of smoothing condensers with change-over switch. The original amplifier, having broken down rather badly, was replaced by a less compact one of greater power, the p.e.c. being left in the projector, mounted on a suitable base.

Sound Quality

It is difficult for the projectionist to judge the quality and volume of the sound from his booth. We therefore have an assistant midway in the hall who can send signals. After much experiment we found four flash lamp bulbs differently coloured and arranged in a square the best signal.

The assistant has four corresponding push buttons. If he sends the signal "More treble," the projectionist slowly increases the treble. The signaller holds the signal

at "more treble" until he is satisfied, when this lamp goes out and the green lamp flashes, meaning "O.K."

To save trouble for small volume changes the signaller has a variable resistance (on low resistance leads) by means of which he can control the exciter lamp current from his seat in the hall. The final adjustment of volume is thus done by one of the audience in the hall. The exciter lamp is lit from accumulators.

Coloured Slides

One effect which I have not seen elsewhere may be of interest. We use a lantern with a rotating colour disc to give slowly changing colours on film titles. If coloured slides are shown with this lantern, different parts of the slide fade in and out at different moments, e.g., with a red cross and green lettering, the cross would be bright and the lettering dark when the colour disc was "at red", and vice versa when the disc was "at green." For cinema titles the square lantern slide light area is diffused by the insertion of a piece of matt "celluloid" so as to cover the rectangular screen.

BLOOMING GIVES BETTER RESULTS

At the invitation of the Westminster Photographic Exchange, Ltd., who have always been to the forefront in providing special services for their customers (cinematographers will remember, for example, their Peerless Process for the preservation of films) we have submitted one of our lenses for 'blooming'—an individual service they are now offering in association with the Pullin Optical Co., Ltd.

The theory of blooming has long been known to lens makers, and in very early days Mr. Mark Taylor, of the firm of Taylor, Taylor & Hobson, makers of the 'Cooke' lens, published a paper on the subject. Mass radiography played its part in encouraging the development of blooming because, at one and the same time, it presented a requirement for maximum light transmission combined with preservation of maximum contrast, while the light emitted from the fluorescent screen, because it is virtually monochromatic, permits blooming to exercise its maximum effect.

Light passing from one transparent medium to another is subjected to certain changes. Part of it proceeds onwards through the denser medium (the lens glass) and is refracted to greater or less degree, and the rest is reflected back into the thinner medium (the air). Thus some complete loss of light is suffered.

In the same way, the light which has proceeded onwards into the denser medium is partially transmitted at the next air-glass surface and partly reflected back into the lens glass. This reflected light bounces backwards and forwards within the lens glass, some of it is lost and some of it proceeds forward, but is now in the form of a 'spray' of light which spreads all over the picture and tends to flatten it.

In extreme cases, where a very bright light source is contained within the picture, the light from this source will be reflected backwards and forwards within the lens system and finally deposited as a distorted image of the source at some point within the

picture. You get this effect if you point your camera at the sun.

The greater the number of glass components in the lens, the greater the number of reflective surfaces and therefore the greater the loss from surface reflections of the type described.

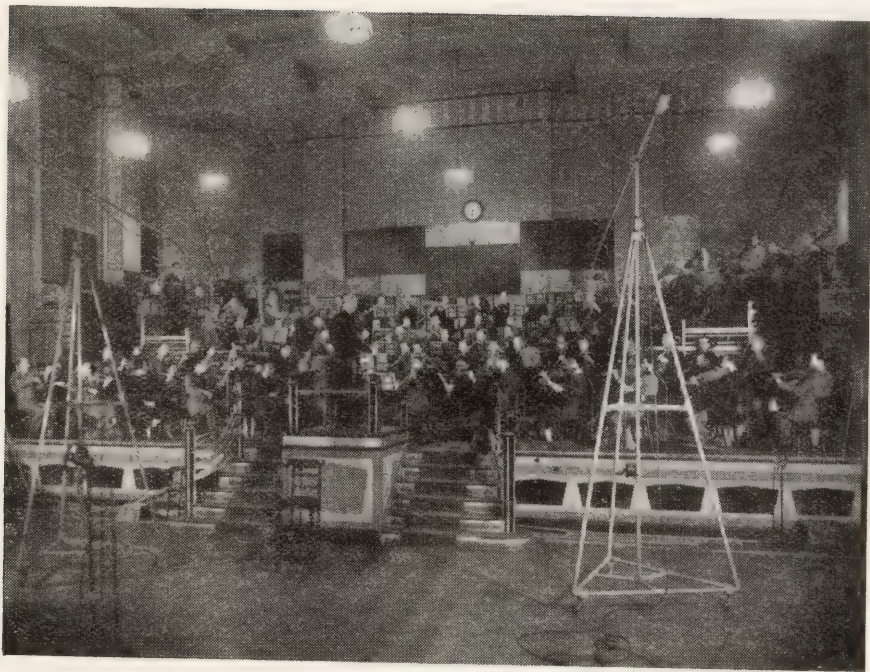
The principle of blooming is briefly this. If there is deposited on the surface of the dense transparent medium (the lens glass) a layer of another transparent medium of appropriate characteristics and thickness, the vibrations of the reflected and incident light will cancel one another and no unwanted light will be transmitted. If the layer is one quarter of a wave-length in thickness then unwanted light of that wave-length will be entirely eliminated, the effect progressively diminishing for longer and shorter waves.

With ordinary lenses some of the apparent exposure of shadow details is due to the presence of this reflected light. Therefore the blooming of a lens will cause it to appear a little 'slower' when dealing with shadows. But that can be overcome by increasing the aperture or the exposure time. But, as our test film taken with the bloomed lens plainly shows, the quality that is gained is greatly increased preservation of contrast and detail, and a general 'cleaning up' of the picture.

Although blooming will not enable the worker to point his camera directly at bright light sources with impunity, it will enable much superior results to be obtained when working against the light. In fact, usable results can be obtained with the bloomed lens that are impossible with a normal one.

Similar benefits are seen when projection lenses are bloomed. The quality of the projected picture is considerably improved, and it is no idle prophecy to say that, in the light of experience, bloomed lenses will in time be regarded as an essential for the completely successful projection of colour pictures.

The Westminster service costs 10s. per internal surface.



B.B.C. Symphony Orchestra—Conductor, Sir Adrian Boult—photographed during a recording session for H.M.V.

Choosing Music For Your Films

By KENNETH HUGHES

THE amateur who develops an interest in the use of music with silent films gains an immeasurably greater enjoyment from his hobby, for the further he goes with it the more does he realise that it is as much an integral part of movie-making as photography or editing. It enables him not only to add interest and colour to his own productions, but gives dramatic significance to the many first rate silent films procurable from the libraries.

The most important point to be borne in mind is that the music should not be obtrusive. Its function is to accentuate the theme or drama of the film, interpret its mood, rhythm and emotional colour (although not necessarily all at once) and yet it should, except in certain specific cases, remain subordinate to the film.

The works of Bach, Beethoven, Brahms,

Mozart, Schubert and Haydn are rarely suitable. Familiar classics should also be avoided, as should easily remembered themes such as the one from Tchaikowsky's "Pathetique" Symphony, even though they may suit the mood of a particular film, for they may set up associations in the minds of the audience quite at variance with those intended by the director.

But advantage can be taken of music which possesses a clearly defined association or significance. Many works of this type have been specially orchestrated and are thus particularly suitable as film music. Here are a few examples:

"Children's Overture" (Quilter) based on nursery rhymes. HMV C 2603.

"1812 Overture" (Tchaikowsky) based on the Marseillaise and the Russian Imperial National Anthem. COL. LX 932-3.

**Eric Coates conducting.**

(Photo. H.M.V.)

Comic, Quaint: Music such as used in cartoons.**Sparkling, Gay:** Suggesting Carnival.**Pastoral:** "The woodland glades of the English Countryside."**Rushing, Dashing:** Hurry music without suggestion of drama. Traffic, trains, etc.**Lounge Music:** Usually nondescript, as heard in tearshops, light Viennese waltzes, etc.**Dainty:** Minuets, intermezzos.**Sad:** Lullabies, sentimental tunes, sweet music.**Romantic:** Love themes.**Religious:** Hymns, vespers.**Foreboding:** Ghoulish, 'spook' music. (Can be both comic and dramatic.)**Pompous:** Regal, imperial marches. (Elgar's "Pomp and Circumstance.")**Tragic:** Suggesting death, funeral.**Stormy:** Tempestuous, battle music, fires, storms, etc.**Nautical:** Sea shanties, hornpipes, etc.**Sea and Water Music:** Suggesting movement of waves, wind or rivers. (Well known examples: "Fingal's Cave" and "La Mer.")**Mechanical Music:** (See below).

Numbering the records is simple. Each category is given a prefix letter, and each record in the category a number. Thus the first disc in the 'Comic' section, would be A.1, the next A.2, while the first disc in the 'Sparkling, Gay' section would be B.1, and so on.

One can only attempt a *general* musical interpretation of the film-story. Using too many records is likely to result in a hotch-potch of orchestra, melodies and keys. Probably the best way to set about "scoring" a film is to divide the picture into sequences and to try to use one piece of music for a whole sequence (or *more* than one sequence if possible).

This means that instead of merely fading in a new disc when the mood of the film changes, we must attempt to select music which changes in mood *itself* to suit the picture. This will produce a much more aesthetically satisfying result and, while it calls for considerable thought, and time in selecting the records, is by no means impossible to achieve.

Reproduced here is a copy of the original cue sheet for

William Walton.

380 (Photo. H.M.V.)

"Variations on a Nursery Tune" (Dohnanyi). HMV D 2054, 5, 6.

"Variation and Fugue on 'Under the Spreading Chestnut Tree'" (Weinberger). HMV C 3148-9.

"Bird Songs at Eventide" (Coates) Variations on original song. COL. DX 454.

"Fantasia on British Sea Songs" COL. DX 955.

"Three Men Suite" (Coates) Based on shanty, 'Johnnie come down to Hilo.' HMV C 2723.

"Symphony No. 3" (Holbrooke) Based on 'No more I'll go a roaming.' Decca X 195.

Perhaps the type of music best suited to films is that which is influenced by the tempo and rhythm that has entered into life in the past few decades and loosely labelled "modern." This term is generally used to describe the type of music which reached its greatest popularity in the early twenties, and which has now developed into a more mature and definite style.

Prominent among the composers in this genre are:

Kurt Atterberg
Arnold Bax
Arthur Bliss
Ernst Bloch
Benjamin Britten
Eric Coates
Claude Debussy
Frederick Delius
Vincent D'Indy
Paul Dukas
Edward Elgar
Manuel de Falla
George Gershwin

Paul Hindemith
Josef Holbrooke
Gustav Holst
Arthur Honegger
E. J. Moeran
Darius Milhaud
Serge Prokofiev
Maurice Ravel
Dmitri Shostakovich
Jean Sibelius
Richard Strauss
Igor Stravinsky
William Walton

Vaughan Williams

Many of the works of each of the above have been recorded, while nine of them (notably Walton, Williams and Bliss) have written a considerable amount of music for films.

Now that we know what sort of music can be used for films, our first job is to classify the records we may already have and any suitable ones we may have heard and hope to own some day. I use the following categories, which are based on those used in the HMV "Mood Music" Catalogue.

The padre of the Ostend fishing fleet conducting a service in England. A scene from "Catholics in Britain" a Ministry of Information film made by Verity Films, part of music cue sheet for which is given below.



the second reel of a 2-reel M.O.I. film for which I arranged the music. Note that the film has been broken down into sequences and that in some cases one piece of music has been so arranged as to change mood in accordance with more than one sequence. (The timings and footages are for 35mm. at 24 frames per sec.)

In arranging the music for this film, I was able to record the music first on to the track, and then edit the tracks afterwards, but as you can see, there are no cuts in the music and it could have been recorded straight off. The advantage of editing is, of course, that greater accuracy can be attained in synchronisation.

The actual choice of music is very much a matter of personal taste, but one should not be influenced by what might appear to be the "obvious" selection. "Villainous Themes" and "Furiosos" as titles for incidental music, were, or should have been, left behind with the days of the nickleodeons. Talkie film music has risen to a high standard,

and commands much respect from members of the music profession, and there is no reason why the amateur, when "scoring" his film, should resort to third-rate music.

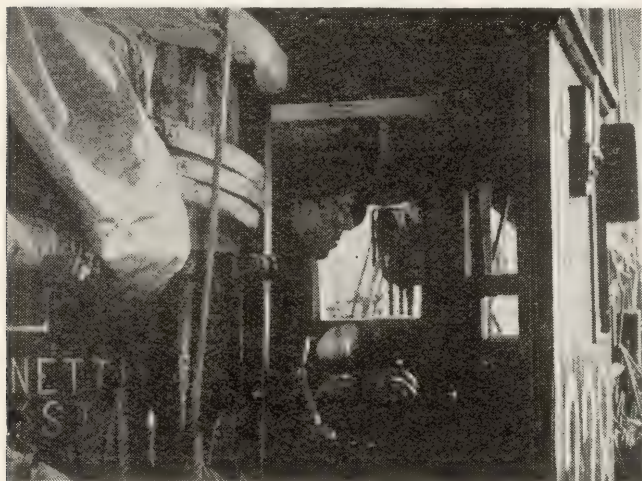
A one-time popular form of film music was "mechanical music," used in the early 30's to some extent by the French and Russians. Typical examples are to be found among the early works of Honneger ("Pacific 231," "Rugby"), Mossolov ("Steel Foundry") and Prokofiev ("Chout," "Loves of the Three Oranges").

William Walton broke away from this conventional form in his score for the film

MUSIC CUE SHEET	"Roman Catholics in Britain" (M.O.I. Reel 2).		
Sequence	Ft.	Time	Music
Belgian radio announcer gives out news of Nazi invasion.	20	13	<i>Synchronised Sound</i>
Fishing boats hear news and start to turn toward Britain	100	66	Walton Symphony, start side 3, Decca X 109.
Montage. Quick cuts of boats turning in sea heading toward camera at speed	80	53	(continue Walton) At sharp chord and break in music (2 mins.) ... <i>Cut</i>
Map of Nazi Advance	30	20	<i>Mute</i>
The villagers are warned of the advance and head towards the quay.	90	60	Vaughan Williams Symphony. Start side 1. (loud opening chords) HMV DB 3367.
Nazis advancing. Leaving behind a havoc of fire and destruction	140	93	(continue)
The little ships sail out of the harbour. Free!	30	20	(Hold on loud chord. <i>Cut</i>)
Ship at sea. Night effect.	15	10	<i>Mute</i>
Fade out/in on ...			
Ship now well out at sea			"Dream of Gerontius" (Elgar). Start side 2. HMV DB 2194.
Pan over children sleeping	60	40	
<i>Dissolve.</i>			
Landing in Britain	60	40	(continue)
Church Service	45	30	Mix at quiet passage to Plainsong. Start. HMV C 2087. (Plainsong ends.)
<i>Dissolve</i>			
Westminster Cathedral Service	60	40	"Obis Factor" Start. HMV DB4894
End Title	7	5	(continue to end) (last 4 bars of "Obis Factor.")



An Ostend fishing boat on its way to England with the fishermen, their wives and children, is attacked by German aircraft.



The wheel-house of a fishing boat. Both pictures are scenes from "Catholics in Britain".

"The First of the Few." Instead of musical hammerings and bangings he chose the classical form of the fugue to illustrate a sequence dealing with the building of a Spitfire. (A fugue is a composition starting with a melody or subject, to which is added, in turn, other instruments playing the same melody, in the key of the original melody

and a 5th higher alternately, until all instruments are playing.)

He thus achieved a close alliance between picture and music, both developing and shaping in a similar way. If you listen to the disc (HMV C 3359) you will hear no suggestion of musical nuts and bolts such as might have been attempted by a composer of film music ten years ago.

To take another case, the motion of a train can be musically interpreted in two different ways. For mechanical effect, part of Honneger's "Pacific 231" (Parlophone R 20108) could be used. This would produce the effect of machinery, wheels pounding across metals, steam hissing, etc., and in some cases might be quite impressive.

But a more lyrical feeling might be given to the film by suggesting flow, movement, passing towns and fields, removing the drama that Honneger's music would give to the film, and replacing it with the gay, almost romantic, feeling that one sometimes gets from travelling by train. My suggestion would be "Danse" by Debussy (HMV DB 1542) or side 3 of "Nocturnes" by the same composer (HMV DB 5067).

Once the sequences needing music have been selected, they should be carefully timed with a

stop watch (if you know where to get one let me know, I use an alarm clock) or else measured and the times calculated from the length. Once this is done, the picture can be laid aside and the music arranged according to the timings taken.

The following approximate calculations may be useful. (Cont'd on page 385)

Careers in Films

by **F. HOWARD CRICKS, F.R.P.S.**

Although this magazine is, of course, concerned primarily with amateur film production, we have recently received many requests for information on how to obtain employment in the professional film industry. This article, by a well-known authority, effectively answers the questions asked, by a general survey of present-day conditions.

B RITISH films to-day enjoy a prestige such as they have never before known. Discerning audiences in this country express their preference for British entertainment as against American, and we learn of fantastic sums—in the case of "Caesar and Cleopatra"—one-and-a-quarter million pounds—being spent on production. On the Continent, reports indicate that audiences—even German—demand British films. Even in America, a British film has set up a record of an eight-weeks run in a New York theatre.

It is not surprising therefore that innumerable people seeking fresh careers should look with interest to the apparently limitless possibilities offered by the various sections of the film industry. It is with real reluctance that I have at the moment to persuade them to look elsewhere.

Training for ex-Service Men

As was mentioned a couple of years ago in *Amateur Cine World*, the British Kinematograph Society—the technical society of the industry—had planned short-term specialist courses for various sections of the industry, to be reserved for ex-Service men. With one exception, these plans have failed to materialise, owing to the apparently paradoxical view of the industry that once its pre-war employees have been reinstated, there will be no vacancies for newcomers.

The hard facts at present are that, although the industry complains about the slow de-requisitioning of studio space (over half of which has been in Government hands during the war years), production plans have not even kept pace with the present rate of release. The Association of Cine Technicians—the trade union representing a large proportion of the technicians—announces a long list of unemployed members, and quite naturally it insists that these members shall be found employment before training is provided for newcomers.

Let me say quite frankly that I personally do not agree with this rather pessimistic view as to the future of the industry. In

my view, the industry should in the next two or three years show a tremendous expansion, and every capable man and woman will be required. Training schemes should be instituted now, in preparation for this expansion.

But the trade as a whole thinks otherwise, and so we in the technical branches can do nothing but await developments.

Employment in the Studio

Let me briefly outline the various sections of the industry and their potentialities.

Chief interest is, of course, centred in the studio. One hears of fabulous salaries paid to studio executives; a few fortunate people certainly get these big salaries, but for the rank and file, salaries are little higher than in other industries, while conditions of employment are in some respects worse than most: uncertain working hours, and in many branches insecurity of employment. These faults will undoubtedly be eradicated in time, but to-day they detract from the attractiveness of studio employment.

The Director and the Editor

Of the many jobs in the studio, the plum is to most people that of the director. Let me first differentiate between the producer and the director: the producer is primarily a business man, who arranges stars' contracts, books studio space, engages production staffs and all the rest of it, and only sees the film as the sequences come from the film editor. The director, on the other hand, is the man directly responsible for the production of the film on the floor.

Ideally, the director should have a thorough knowledge of every branch of production; in practice the best directors have graduated from film cutters and editors. The latter branch is at the moment especially crowded, because during the war a number of women have reached leading positions, and they as well as the men returning from the Forces must be kept in employment before newcomers can be considered. If you ask how

you can obtain jobs as film cutters, I frankly don't know.

The Cameraman

It is a remarkable fact that 80% of applicants for studio jobs have a hankering after camera work—probably because they have used a substandard camera and think how easy the job is. Let me advise would-be cameramen to think again. The cameraman's job is, after the director's, the most responsible on the floor, and people are not paid handsome salaries merely for pressing the camera switch; in point of fact, the lighting cameraman never touches the camera; his job is solely to advise on set construction in relation to photography, arrange camera angles and supervise the lighting.

With the advent of colour, he will need both an artistic and a scientific knowledge of the many problems associated with the colour film.

The Sound Department

Many men who have had electrical, and particularly Radar, training in the Services have visions of a career in the sound department of the studio. They certainly have more to offer, in that their knowledge of electricity, sound, amplification, etc., is of immediate value; but the A.C.T. waiting list includes a number of sound technicians.

The sound department includes quite a wide range of crafts. Under the control of the director of recording is a considerable staff, comprising boom operators (who actually work on the floor), recordists, re-recordists, maintenance engineers and a "back-room boy" whose job it is to keep an eye on the many technical problems of recording.

The B.K.S. Course

There is one accepted means of entry into the technical branches I have discussed: the two-year course of training which since 1931 has been running at the Polytechnic, Regent Street, under the aegis of the B.K.S. Entrants to this course must have reached matriculation standard in science subjects; the course covers every technical aspect of the industry, seeking to provide an all-round training rather than to create specialists.

Students in past years have reached good positions in the industry. The intake is, however, restricted to twelve students per annum.

Art and Dramatic

On the art side, the art director recruits his staff from architectural schools. Those who have had such training—men and women

—might usefully look to this side of the industry, although I should warn them that very high qualifications are demanded.

Costume designers, too, graduate through art schools. Even make-up experts need an almost unique theoretical knowledge of the photogenic qualities of their grease-paints.

Of the dramatic side I have little personal knowledge. There are two avenues of approach to the dazzling heights of stardom. The hard way—and the more uncertain way—is through the ranks of the crowd players, which ranks are to-day, as ever, much overcrowded. The better way is through dramatic schools and the repertory company.

There are, of course, many jobs in the studio associated with production, but not needing filmic knowledge: accountants, buyers, those responsible for buying and hiring furnishing and set decorations. Usually such jobs go to people with outside experience.

The Laboratory

In close association with the studio is the laboratory. The modern film laboratory is so organised that two or three trained technicians can control an output of millions of feet of film. The scope for well-paid employment in the laboratory is therefore very limited.

The essential qualifications are a knowledge of chemistry and of the specialised applications of photographic science.

The Renters

Financially the distribution side of the trade represents a very important business. But generally each renting firm employs only one or two technicians, whose job it is to place print orders, supervise the quality of output, and deal with complaints from projectionists.

As a field for technical employment, therefore, distribution can be ruled out, although large numbers of persons are employed in business capacities—salesmanship, accountancy, publicity, etc.

Cine Projection

Finally, we come to the cinema. This is the sole branch of the industry in which the employers have definitely stated that considerable increases in numbers of employees will be called for. The reason is that an increasing number of cinemas on reverting to pre-war opening hours will have to adopt the shift system, instead of (as was too often the case before the war), working a single shift unreasonably long hours. A spokesman of the Cinematograph Exhibitors' Association has stated that 2,000 additional projectionists will be needed.

CAREERS IN FILMS

(Continued)

One of the leading circuits has throughout the war run a small training school for war-time projection staffs. It plans an extension of this course, catering particularly for ex-Service men. The training syllabus has been agreed between the B.K.S., the C.E.A., the trade unions and the Ministry of Labour, and it is safe to say that an intelligent man who passes out from this course will know more about the job than 90% of existing employees.

The work is not arduous—it was, in fact, envisaged as a field of employment for disabled men, and the rates of pay, compare well with other skilled trades. The hours of work are not excessive, although, of course, including evenings, Saturdays and often Sundays.

Mobile Projection

A branch of projection offering more interest to many is the mobile show—generally running 16mm. Many men who have handled substandard equipment in the Forces plan to start up as mobile 16mm. showmen, catering for village entertainment. I believe there is a good scope for a limited number of such shows; but if all the men who have told me of their plans to start such units bring their schemes to fruition, the field will be hopelessly overcrowded.

There are certain difficulties to be overcome. There is considerable uncertainty

in the trade at the moment as to what films are to be available on 16mm., and strong opposition from the C.E.A. towards such shows, which might possibly result in their being left virtually without films; even rural audiences will not to-day tolerate programmes of years-old films (except for certain outstanding re-issues). Another problem is that there is in my opinion not a single 16mm. projector on the market capable of standing up to the arduous conditions of daily mobile shows.

I sincerely advise those who are considering embarking upon such an enterprise to consider seriously whether they have anything the others haven't got—for instance, some special contacts which might lead to long-term non-entertainment contracts.

In conclusion, may I make one request: please don't write to me on these problems. Like the editor of A.C.W., and practically every other target for correspondence, I am snowed under with requests for advice.

If you are interested in the B.K.S. Polytechnic course, write direct to the Polytechnic, 309, Regent Street, London, W.1. In any other of the branches mentioned, unless you really have some special qualifications—think of something else.

The one exception is ex-Service men wishing to take up cinema projection; if they will communicate with me I will put them in touch with the training school mentioned.

CHOOSING MUSIC FOR YOUR FILMS

(Continued from page 382)

In order to turn feet into seconds.

At 16 frames per sec.	16mm. Ft. x 5/2=	seconds
At 24 " "	16mm. Ft. x 3/2=	seconds
At 16 " "	35mm. Ft. x 9/10=	seconds
At 24 " "	35mm. Ft. x 2/3=	seconds

Finally a word of warning. Suggestions that I have made in this article are intended for home and private use only. The use of

records for re-recording brings in expenses and copyright difficulties which are not too easily overcome. In case of doubt, application for information can be made to Phonographic Performances Limited, 144, Wigmore Street; the Performing Right Society, 33, Margaret St., W.1, and the Sound Film Music Bureau, 9a, Sackville Street, W.1.

by mass production methods—a result to which pride of workmanship materially contributes.

The sheets issued to date include informative notes, together with useful technical data on the services mentioned above, enlarging from cine frames and microfilming, and some useful succinct advice on "How to Take Good Films."

Since the present day value of the binder alone is 6s., the Information Sheet Service is an attractive proposition.

DALLMEYERS MOVE

Messrs. J. H. Dallmeyer, Ltd., manufacturers of photographic and cinematograph lenses, announce that their entire sales and service organisation, covering both export and the home market, is now conducted from their Church End Works, High Road, Willesden, N.W.10, address, Telephone No. Willesden 1621-2, where additional accommodation has been made available.

MICROFILMS' INFORMATION SHEETS

The Information Sheet Service—successor to Todd's Bulletin—now available from Microfilms, Ltd., 31, Albert Square, Dundee, is to be most cordially commended. It is an adaptation of the catalogue to the loose-leaf system, subscribers being supplied with a cloth bound "Ludgate" ring binder and, from time to time, information sheets for insertion in it. The current subscription, covering binder, foreword, the first twelve sheets—to be issued as opportunity offers—and blank ruled sheets for the subscriber's own use, is 7s. 6d.

Even as a catalogue—and it is not solely that—it is refreshingly original in its sober presentation, avoidance of extravagant statement and clarity of expression. The reader feels that the services described—processing, modification, titling and so on—effect a happy compromise between the personal requirements of the customer and the limitations imposed

"DO IT YOURSELF!"

practical ideas for the handyman

SOME NOTES ON PUPPET ANIMATION

I MAGINE that several volumes could be written on the subject of puppets and the ways and means of animating them, quite apart from the purely photographic problems with which one will have to come to grips. Nevertheless, this need deter no one from embarking upon a most fascinating variation from ordinary movie making.

Indeed, I remember getting a great deal of fun out of assisting in the making of a simple film in which the puppets were little more than a couple of pipe cleaners! It was a boxing match, held in a miniature ring, and a good, hard punch bent the recipient's "body" nearly double. Black cotton thread was used to deflect the ropes when one of the contestants was receiving punishment and in spite of the trials of manipulating him frame by frame, he was finally knocked clean through in a most convincing manner.

This simple film, taken from a single camera position, taught many valuable lessons and I would strongly recommend an equally simple subject as a first attempt if only as an exercise in *timing*: to learn how to make a punch look like a punch and not a slow-motion dig in the ribs.

If the human body were a simple machine, we could say that animation is entirely a matter of timing: action is movement and movement is change of position in space. The *nature* of the movement is determined by time, the number of frames of film taken to complete the change of position in space.

The human body, however, is not a simple machine and "walking" does not become "running" by reducing the number of frames per cycle alone. The individual but co-ordinated actions of the limbs, feet, head, and indeed, the whole body change too: for example, in walking, it is heels down first, but in running, we keep on our toes. If our puppet is to be reasonably convincing on the screen, these additional variations must be taken into account as well as the timing.

For this reason, before any attempts are made to use up film, I strongly recommend a preliminary study of the commoner movements such as walking, running, sitting down, standing up and so forth. This is done by analysing a strip of "live" film to

In each issue our contributor supplies worth-while ideas: things to make and things to do. Suggestions for gadgets are welcomed.

By G. A. GAULD, B.Sc.

find out two things: the exact form of the movement and the time taken to effect it in terms of the number of frames required for the completion of a repetitive cycle.

It is a simple enough job and as the studies obtained will provide an invaluable reference for future work, it is worthwhile to tackle it systematically.

First of all, purchase several blocks of squared paper divided into inches and tenths, not less than "quarto" size. Next, beg, borrow or steal an ordinary office filing punch and punch two holes in each sheet on the long edge. It is important that the holes be accurately located in relation to the squares on the graph paper and this may mean punching each sheet individually as there is no guarantee that each sheet in a block will be identically cut. It is best to make some form of jig which may be fitted to the punch, setting the paper to a definite intersection of two lines each time, and having done this, prepare a large number of sheets at the one sitting.

Next, knock up a small drawing board fitted to a stand so that the face of the board will be vertical when set up on a table. Fit two wooden pegs to the "gauge" of the holes in the squared paper so that succeeding sheets may be placed on the board in the sure knowledge that the graph paper is accurately located in the identical position each time.

When all is ready, set up the board at one end of a table with your projector opposite to give a picture on the graph paper occupying most of the available space, then clamp down both items of equipment so that they will not move. We are now ready to tackle our first "motion study."

Later, it may be advisable to take special "live" shots of particular movements for the purpose of analysis but very often suitable

sequences can be found from our ordinary library of films. In general, the shot selected should be taken from a normal camera angle giving a "broadside on" view of the action. Using the still picture device (if your machine does not have this, try a piece of fine wire gauze between the condenser and gate, or cut down the illumination by means of an auxiliary resistance in the lamp circuit) project the first frame on to the graph paper and outline the figure under study in pencil. Repeat the process for each succeeding frame, using a new sheet of graph paper each time until you have a record covering a complete cycle of the movement. Number each sheet to correspond and you will have a set of sheets similar to those illustrated in Fig. 1. These will provide a complete record of the movement, showing the limb action and other details, such as the bobbing up and down effect of the whole body when a person is walking. Reference lines, inked in, as shown in Fig. 1 will help to bring out such additional features of the action.

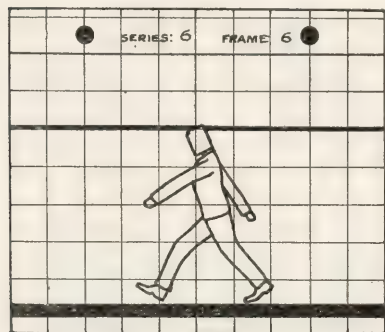
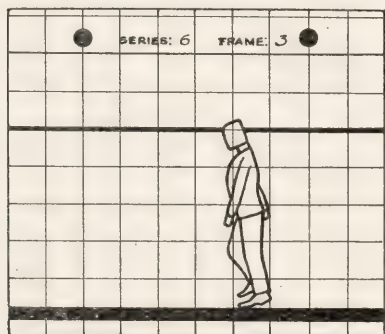


Fig. 1.

I suggested the "broadside on" view because in most cases this alone will suffice. Occasionally, it may be necessary to add a

front view if, for example, you want to show the "rolling" gait of a sailor, but two sets of sheets will suffice for any camera angle used on the set. Clearly, it will be a simple matter to animate the puppet viewing him "broadside on" on the set. This will ensure that all relative movements are correct and therefore, no matter what camera angle is used to photograph him, the action will be correctly portrayed on the screen.

For practical purposes, a little more work on the reference sheets may be advisable. It is extremely unlikely that a complete cycle of movement taken from a "live" movie will occur in a finite number of frames. In animation, where a repetitive cycle is concerned, it is almost essential that the cycle should repeat every so many frames otherwise unnecessary complications are introduced. It may be helpful therefore, to "adjust" the record made from the "live" movie to the nearest frame.

We will suppose, for example, that a complete cycle of two paces, one for each leg (at "silent" speed—16 frames per second) takes rather more than seven frames. That is, if we number our first sheet "0" the same position of the limbs in relation to the body would repeat somewhere between 7 and 8. Adjustment to either 7 or 8 frames would be helpful, as each pace would then occur in a finite number of frames, but this might interfere too much with the timing. We will assume, therefore, that we must adjust the cycle to 7 frames if we are to preserve the correct speed.

From Sheet No. 0, sketch in the completion of the cycle on Sheet No. 7, then adjust each sheet, backwards, less and less until you have divided the action smoothly over the eight sheets. The outlines may now be inked in and will provide the record from which you will position the puppet on the stage for each single frame exposure.

To complete the record, clip the series of sheets together and add a cover sheet on which the description of the movement is entered together with any notes you may have made of detailed movements when making the analysis. A few such records will form a "Reference Library" for all future animation work.

At this stage, I would like to say that my own work is still in an experimental form and I make no claims to being an authority on the subject. A few hints, however, based on my own experience may be of assistance to others who may be experimenting along similar lines.

I have generally found it necessary to give my puppets full movement, even if they are of the "Toy wooden soldier" type and an articulated doll body of the style shown in

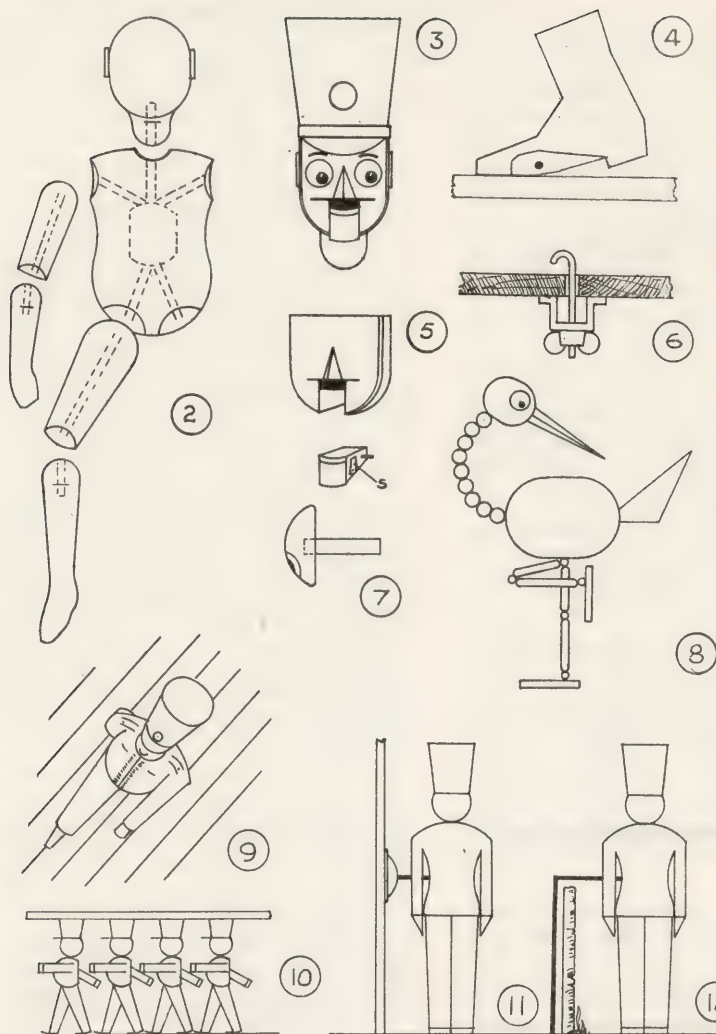


Fig. 2 has answered fairly well. The limbs are linked together by elastic caught together at a hole in the back of the body. The joints are "stiff" and so "stay put" when moved from one position to another. At the same time, I would call attention to the possibilities of the "Woofle Bird" form of Fairyland creature built on similar lines as shown in Fig. 8.

Special heads or other portions of the body may be made for close-ups, but in the full length figure, it is an advantage to provide for eye and mouth movements. For the

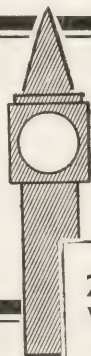
former, the "button" type of eye serves quite well, and so long as our puppet does not represent a Fairyland "Beauty," the lower jaw style of mouth movement shown in Fig 5 will do. I have not had much success as yet in attempting to portray "Beauty" on the screen; the most promising line appears to be concentration on a presentable "fixed" chorus-girl style of expression, limiting movement to the eyes only. After all, some of the leading film stars from Hollywood do little more than this!

One of the first problems to be overcome was that of keeping the puppet's feet on the ground, or, more particularly, one foot, while the other one carries out its one pace forward in walking or running. The best solution I found was a slotted floor to

the stage and the anchor-bolt affair shown in Fig. 6.

The puppet's foot is given a curved "sole" so that he may be secure either flat on his heels or poised on his toe. It is hollowed out inside and a pin is inserted, Fig. 4, to which the hook on the anchor-bolt is attached. If the curved form of the sole and the pin position is right, the foot can be clamped to the stage floor rigidly over quite a large angular leg movement and, of course, the whole affair is quite invisible in so far as the camera is concerned.

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SOME NOTES ON PUPPET ANIMATION—(Continued)

Even if a camera angle is chosen in which the stage floor is visible, the slotted floor may be disguised as deck planking, as in Fig. 9, or by the addition of cross lines, a tile floor could be suggested.

In most cases, provided the puppet is stiff jointed, this fixing alone will suffice, but if body support is required, one or two possibilities suggest themselves. There is the bent wire support shown in Fig. 12 where suitable scenery is contrived to conceal the wire from the camera. On one occasion, where this was impossible, I tried a sheet of glass placed over the entire scene immediately behind the puppets. The wire support was attached to a rubber "sucker" which, in turn, was supported on the glass. The back scenery was, of course, photographed through the glass plate which was itself invisible in the final screen result. Care must be taken, however, to avoid reflections which would give the game away.

Another specialized variation of the same idea is shown in Fig. 10. Here, a glass plate is used to support a set of toy soldiers; they were glued to the underside of the plate by the tops of their hats and shot through it from a camera angle similar to that of Fig. 9.

The purpose in this particular case, however, went a little further in that one movement of the plate imparted the up and down movement of marching to the entire army! At the same time, their feet were attached through the slotted floor to a longitudinal rod so that the leg movements for each file of soldiers were obtained by a single manipulation of the appropriate rod.

Such short cuts as these are a big help in single frame animation, but with puppets, unlike cartoon work, it is often possible to reduce the tedious process of single frame exposure to normal movie making. A typical example is that of two puppets riding a tandem bicycle in which their feet are attached

to the pedals and motion imparted by rotation of the wheels. This can be done outside the camera range and the sequence shot at 16 frames per second in the ordinary way. Lack of facial changes of expression can be covered up by cross cutting with a few close-ups or changes of camera position and reverting to single frame exposure.

Now one final word of advice: in cartoon work, you have a series of drawings and one follows automatically after the other until the cycle is completed and, provided they are properly numbered, there is little danger of anything going wrong. In puppet animation, it is quite different. Each movement must be made and shot separately before proceeding to the next. In a long sequence of, say, 12 frames, even without interruption you are certain to reach a point sooner or later when you are not quite sure as to whether you are shooting Frame No. 5 or No. 6 and there is a real danger of the whole sequence being spoiled.

The remedy is a simple counting device and the simplest one I know of, and possibly the most effective, is a set of counters, coins, pebbles, anything you like, equalling in total the number of frames in the cycle to be shot. At the commencement, place all these at the left hand side of the stage. After the first shot, move one pebble from the left hand side to the right hand side, and do this every time you expose a frame. A more elaborate form of dial counter can of course, be made, but a counting device of some sort is essential. So long as the pebble is transferred with each exposure, or the dial index moved, you minimise the danger of ruining a sequence on which many hours may have already been spent.

This may seem to be an unnecessary point to bring up but experience has shown how vital it is, and I am not alone in this weakness. So, do not forget your counter and good luck to your first puppet film!

FILM APPRECIATION

THE subject of Film Appreciation is being regarded as of considerable importance by the Education establishments of the country. Notable among these is the College of Art & Crafts at Kingston-upon-Hull, whose Principal, Mr. S. Hemming, A.R.C.A., London, has organised a series of One Day Courses at which the speakers have included Mr. Roger Manvell, Ph.D., author of the well-known Pelican book, 'Film,' Mr. Basil Wright, Producer at the Crown Film Unit and maker of the outstanding film "Song of Ceylon," and Mr. Anson Dyer, the leading British film cartoonist.

The making of amateur films is recognised as an important factor in the growth of Film Appreciation, and for this reason one of the Courses was devoted to this subject. The speaker was Mr. George H. Sewell, A.R.P.S., a frequent contributor to these

pages. The course, which was accompanied by practical demonstrations, covered the whole process of amateur film making, from the original conception of the idea to the projection of the finished picture.

Mr. Sewell outlined the organisation of personnel, and described and showed the essential equipment for making, editing, titling and finishing the films. He laid particular stress on the importance of planning beforehand, the conception of the subject as a whole, a clear view of what was to be said in the film, and the preparation of a properly detailed script.

The papers were also illustrated by several films. One of these, in colour, showed the building of a dam by a native tribe in Africa, while others showed a simple subject in its earlier stages as it came from the camera, and later in its fully edited form.

The Course, for which a fee was paid by the entrants, was well attended.

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Secretary : **C. LESLIE THOMPSON, B.Sc.**

Secretary's Report

THE recent decision to drop sound conversion from T.I.D. pages seems to have caused a certain amount of misunderstanding, and a little pained surprise. The latter reaction was not altogether unexpected, but to make the situation clearer the following three points should perhaps be stressed :—

1. We hope to continue to give a fair proportion of items of a directly practical or constructional type. These will be mainly of a general nature, applicable to existing apparatus and equipment.

2. We shall continue to welcome enquiries about all aspects of sound-film activity, including your conversion problems, but answers to the latter questions will not be reproduced here.

3. Sound-projectors built "from scratch" do not come under the axe, but it will be appreciated that space must limit reports on these to a very brief outline.

In place of "conversion," we hope to provide an increasing amount of information on sound recording for films. We hope, also, that it will not be long before new sound equipment of every kind is being offered in sufficient quantity and variety to occupy us fully trying to keep up with it all! And we still look to you, dear reader, to provide us with new ideas and suggestions.

Last quarter's brief mention of the 16mm. "Track-Reader" has resulted in a number of enquiries, and many provisional requests for the "Note" of constructional details. The preparation of this has been somewhat held up, but we hope to have it in circulation before the next A.C.W. appears.

Recently, much publicity has been given to portable recording equipment, developed for military use. At first reading, some of these descriptions are likely to give an over-rosy impression. The amateur sound-recorder's problems are not all solved yet! It is good to hear that the British Sound

Recording Association is resuming its full peace-time activity. In the recent issue of the B.S.R.A. *Bulletin* there is reliable information about several of the recording systems mentioned above, and also a very helpful review of the supply position of various materials and equipment. (Enquiries should be addressed to Mr. D. W. Aldous, General Secretary, B.S.R.A., "Strathdee," Studley Road, Torquay, Devon).

We recently received a very interesting letter from Mr. Hildred, of Quito, Ecuador, who expressed surprise at our "labouring on the old idea of cutting disc records, as though wire recording had never been heard of". Mr. Desmond Roe replied to this pointing out that although wire recording offers many advantages, it is not yet accessible to the amateur in this country, who must make use of the materials available. Arising from this correspondence, Mr. Roe has prepared a short resumé of the various recording methods, and their application to the production of amateur sound films. This resumé forms the principal item of the present T.I.D.

As promised in our last issue, we give at the end of this T.I.D. a list of the subjects which have been dealt with since we began. The items may help to crystallise questions in some of our readers' minds, particularly those who have been overseas, or otherwise out of touch with sound-film activity.

While it is possible occasionally to lend back numbers of A.C.W. to enquirers, this has always been on a personal basis, and is, unfortunately, quite out of the question as a general practice. Accordingly, although the dates of the issues are given, this is only for reference, and does not imply that copies are available.

Some readers may be uncertain about the principles and mechanisms involved in sound films. If so, we shall be very glad to have you write and tell us which bits interest—or puzzle—you most.

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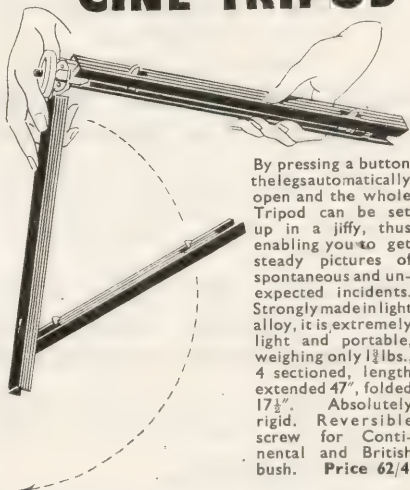
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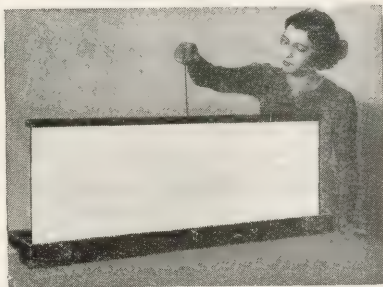
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TRACKING IT DOWN (Continued)

Recording Methods and the Amateur Sound Film

There are three main recording methods which are of value to the amateur. It is hoped that all of these will shortly be available. They are :— Sound-on-Disc, Sound-on-Film and Sound-on-Magnetic Wire or Tape. The first two were available before the war, and most enthusiasts will be familiar with their relative advantages and disadvantages.

Sound-on-Disc was most suitable for adding music and running commentaries to silent films. Comparatively cheap apparatus was available, and good recordings could be made. Generally speaking, however, it was difficult to get consistent results, and, of course, the disc had to be changed after every 400ft. of film. This meant that a long film was rather tiresome for the projectionist.

Sound-on-Film was available only in a somewhat primitive form. None of the facilities were offered to the amateur, which made sound-on-film the logical system for the professional studio. The market was too small for the necessary precision apparatus to be produced economically. Enthusiasts who tried to make their own apparatus found the inevitable experimentation a long and rather expensive job. Obviously, the time was not then ripe for the amateur sound film; but what is the position now—in 1946?

It has somewhat changed for the better. Not so much, though, that within a year of two every amateur will be making sound films, but sufficiently for one to be able to say that the amateur sound film is really on its way, at last. The reasons are threefold :—

Firstly, the recent war has been a highly technical one, with radio and electricity predominating. Large numbers of pre-1939 cine amateurs have been given highly specialised training in these subjects, and now, in peace, wish to use their new-found knowledge in some way. If not in their job, then in their hobby.

Secondly, 16mm. sound film was used on a tremendous scale for training, and for entertainment in isolated camps. Sound projectors were mass-produced for the Forces, while at home many enthusiasts converted their silent projectors to sound. In short, people have become conscious of the possibilities of substandard sound film.

Thirdly, and perhaps most important of all, the professionals started to make films direct on 16mm., instead of printing down from 35mm., as had been the practice in the past. This means that an important market for 16mm. sound equipment has been created,

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3, HIGH STREET, MAIDENHEAD

from which the amateur will inevitably benefit. It is already rumoured that sound cameras and associated equipment are on their way.*

While the future of 16mm. sound seems assured, that of other gauges does not seem so certain. Sound on 8mm., for instance, is widely hoped-for, but seems most unlikely except in experimental form. This is due, of course, to the fact that 8mm. travels at only one half the linear speed of 16mm., and full-range sound is difficult enough on 16mm. It is here that the idea of a separate sound track becomes attractive. Besides keeping film costs to a minimum, the separate track gives complete flexibility and ease of editing. Moreover, sound can be added to films in the other gauges, whether monochrome or colour.

One must not forget, however, that sound brings in its train many additional difficulties, such as acoustics, voice-production, more thorough rehearsals, and complete silence for a background. Even with good apparatus, sound film production can be a slow process, and care will have to be taken that the pleasure and simplicity of film-making are not lost. This is particularly true of the man who buys a cine camera to make a personal record of his family. The sound-on-film method is likely to be too cumbersome for him. It is here that great hopes are expressed for magnetic recording.

Magnetic recording was considered obsolete before the war, but under priorities it received intensive attention and has been developed to a high degree of perfection. The principal factors seem to be the use of a very much finer wire or tape than formerly, and the use of a supersonic bias while recording. Quality is now definitely as good as the average radio set, and it is possible to store half an hour's recording on a reel 4" in diameter and 1" thick. The wire will replay innumerable times with very low background noise, and if desired the record can be completely erased and the wire used again. Furthermore since very small recording currents are required, it is possible to make small portable recorders, battery powered, with clockwork drive.

One must not jump to the conclusion that magnetic wire recording is the complete answer. While it does seem ideal for recording commentaries, and for making simple lip-synchronised films, there is a snag—the editing of the wire. For reasonable sound quality, the slowest speed of the wire is about

two feet per second, and the sound-record is, of course, quite invisible. Locating particular sounds, and making joints—even by so simple a method as tying a knot, is likely to become rather a nightmarish business. Remember that two feet of wire are equivalent to 2½" or 5" or 7½" of film, depending on the gauge and camera-speed.

However, other methods, using cellulose or plastic tapes about a quarter of an inch wide and only about two thous. of an inch thick, are on their way. Since these tapes can be marked for identification, and are readily joined with gum or other adhesives, editing should be fairly simple. The full possibilities—and drawbacks—of this system, which depends upon ultra-microscopic crystals of iron oxide coated on the tape, will not be known until amateurs have had an opportunity to make practical tests.

The writer has been fortunate in having had some experience of wire recording in conjunction with film, and would make the following summary of his present impression of the three principal systems:—

(a) Magnetic recording offers an almost ideal method of recording post-synchronised films, of recording sounds on location, of making simple sound films, and, pending experience with the tape material, possibly of making full-scale sound films.

(b) Sound-on-Film is the logical, proven way to make an intricate sound film of professional quality.

(c) Disc recording has its place as an auxiliary for testing, balancing, and for special music and sound effects. It is generally of higher fidelity than the other two methods—under similar conditions of handling and precision—and so can be used to check their quality. Quick, accurate comparisons are easily made, and isolated sound effects are easily picked out—an advantage peculiar to the Disc.

T.I.D. To Date : Principal Items

March, '42	Photocell types and characteristics. A simple mixing circuit for sound inputs.
June, '42	Simple tone-control systems. Types of exciter-lamp, and suitable supplies.
Sept., '42	Self-contained "All-Dry" preamplifier.
Dec., '42	Minimum requirements for conversion. Mains amplifier circuits for S-o-F. reproduction. (A.C. and AC/DC. types, 2½ to 12 watts output.)
March, '43	Motor governors. Construction and electrical connections. A "safe" 16mm. picture gate for sound films.
June, '43	Standard dimensions for 9.5 and 16mm. sound films.
Sept., '43	Film-drive mechanisms in soundheads (theory). Design and construction of optical systems.
Dec., '43	Step-by-step of sound-on-film reproduction.

*It is also understood that a very influential film group in Britain has acquired the rights to manufacture a wide range of cine equipment—including 16mm. sound apparatus—formerly only available by import from U.S.A.—C.L.T.

March, '44	Film-drive mechanisms in soundheads (practical).
June, '44	Construction of a fluid flywheel scanner. Microphonic interference. Photocell circuits, characteristics and adjustments.
Sept., '44	T.I.D. laboratory report on exciter-lamp hum. Constructional details of non-hum power supplies for excitor-lamps.
Dec., '44	Adding non-sync. turntable with volume control to the "Vox."
March, '45	Reducing mechanical noise in projector. Auditorium acoustics. Loudspeaker systems and frequency-dividing circuits. (Practical).
June, '45	Multiplier photocells. Amplifier screening.
Sept., '45	Room-dimmer, wiring details. Side-tension picture-gates. Design of quality high-gain amplifiers (Part I).
Dec., '45	Minimum equipment for post-synchronised recording, S-o-F and S-o-D.
March, '46	16mm. "Track-Reader." Quality high-gain amplifiers (Part II).

AMATEUR FILM MAKING

The British Film Institute (4, Great Russell Street, London, W.C.1) has issued in pamphlet form—price 6d.—the lecture, "Amateur Film Making" given to the Institute's Summer School on Film Appreciation last year. Its 24 pages are a veritable mine of information for the novice and constitute also a most useful refresher course for the experienced worker.

The author lays particular emphasis on planning the scenario, nearly half of the booklet being devoted to this aspect of film production. In the course of an imaginary conversation between an amateur director and cameraman (during which each describes his own work) he sets the scene for an account of the planning of a documentary film with which he was associated and explains how and why it took the form it did.

Next comes advice on planning for the actual shooting. The imaginary cameraman indicates the salient features of f/1.9 and f/3.5 lenses, gives shrewd advice on the conditions under which they are best used and discusses the effect of focal length. Practical hints on the use of tripods, notes on exposure relative to camera speed, characteristics of film stock and suggestions for camera "drill" complete this section.

The third part, Editing and Presentation, is concerned chiefly with the physical aspect—the types of editing equipment, splicer and sorting boxes and their use in the building up of the film from the complete roll as it comes from the processing station to the finished picture.

WETTING AGENTS

Most of our readers will be familiar with the properties of wetting agents. In cine work their principal application is in ensuring even action when dry film is immersed in a processing solution, and in eliminating "tear marks" due to droplets when drying the film.

We have received from Messrs. Burroughs, Wellcome & Co. samples of their Wetting Agent and Wetting Solution. The Agent is in the well-known "Tabloid" form, one of which is sufficient to treat a pint of solution. Each Tabloid is scored so that it may easily be broken into quarters for smaller volumes. The material dissolves quite readily if ground down finely, although we found the process to take considerably longer than the "few seconds" mentioned by the makers. The Agent is supplied in bottles of twenty Tabloids.

The Wetting Solution is an almost colourless liquid, supplied in 4oz. bottles, complete with a handy dropper. 4 to 5 drops are sufficient for each ounce of solution. Price of both: 2/6d per bottle.

JOHN KING FILMS

have pleasure again in offering a half page packed full of first rate bargains. If your needs are not listed below—write us—we may be able to supply you.

PROJECTORS

35 mm. Dual Sound Equipment, v.g.	£325	0	0
9.5 mm. Pathe 200B, films, etc., as new	£40	0	0
9.5 mm. Pathe Vox, film, etc., comp.	£150	0	0
16 mm. Agfa Super Movector, 750 w.	£90	0	0
16 mm. Agfa Iso Movector, 750 watt	£80	0	0
16 mm. Siemens, as brand new	£65	0	0
16 mm. Zeiss Ikon Talkie, superb	£285	0	0
16 mm. G.B. Mod. 'B' Talkie, v.g.	£150	0	0
16 mm. Victor 40B Talkie, perf.	£275	0	0
16 mm. Latest Victor Talkie, 100% snip	£325	0	0

CAMERAS

9.5 mm. Pathe 'B' f/3.5, ex. cond.	£7	0	0
9.5 mm. Pathe Luxe, f/2.5 Tele., v.g.	£25	0	0
9.5 mm. Pathe Luxe, f/2.5 tele., speeds, 2 viewfinders, case, very good	£30	0	0
9.5 mm. Coronet, f/3.9, as new	£5	17	6
8 mm. Kodak, f/2.7, case, new	£20	0	0
16 mm. B & H 70A, f/3.5, case, v.g.	£27	10	0
16 mm. Ensign Kinecam, f/1.5, perf.	£35	0	0
16 mm. Kodak 'B', case, f/6.5, perf.	£12	0	0
16 mm. Universal, f/1.5, speeds, direct gate viewfinder, perfect	£95	0	0

LAMPS

New and Used Lamps, all types, from 4/- to £4, samples:—110v., 750w.; 100v., 200w.; 110v., 1,000w.; 18v., 9w.; 50v., 200w.; 110v., 500w.; 115v., 300w.; 30v., 100w.; No 'H', Vox, Lux. Various exciters, valves, etc.

9.5 mm. SOUND FILMS—Good Condition

Taking the Blame, 1 Reel. She Wronged Him Right, 1 Reel. What! No Spinach, 1 Reel. Morning, Noon and Night, 1 Reel. Spinach Overture, 1 Reel. A Fire Has Been Arranged, 6 Reels. Warn London, 4 Reels. Sing, Bing, Sing, 2 Reels. All at £3 per Reel. Hungarian Rhapsody, 1 Reel, Cornwall, 1 Reel. Both at £3 10 0 each.

16 mm. SOUND FILMS—Extracts from list—Complete List on Request.

Castle Films, Wildest Daze, 1 Reel. Canine Comedy, 1 Reel. Farmyard Whoopee, 1 Reel. From £4 per reel, and so on!

16 mm. SILENT FILMS

His Marriage Wow, comedy, 1 Reel	£3	0	0
Merry Christmas, Castle cartoon, 1 Reel	£4	0	0
Puddy, the Pup, Castle cartoon, 1 Reel	£4	0	0
See 4, 5 & 6, Castle, each reel at	£4	10	0

LENSES

Projector, 2", 2½", 3" Camera, f/1.3, 1.8, 1.9, 2.5, 2.9, 3.5, 3", Tele., W/Angle, etc., £3 to £20.

ACCESSORIES

Pathe Projector carrying case	£2	10	0
Film Cleaner	£1	0	0
16 mm. Positive Film, 25 ft. rolls	5	0	0
Pathe Speaker, in case	£7	10	0
Reels and Cans. All sizes, from	2	6	0
16 mm. Splicer	£1	0	0
Screens—All sizes, automatic, etc., from	£1	10	0

SPECIAL OFFER

16 mm. 1,600 ft. reel, can and fibre carrying case. Value £4 £2 5 0 or £2 0 0 on 6 or more.

SHOWROOMS, 9.5 mm. Silent Library, etc. 1, East Street, Brighton. Phone: 5918/5919.

ACCOUNTS AND 16 mm. Sound Library 125, London Rd., Camberley, Surrey. Phone: 544

LONDON OFFICE

59, George Street, Baker Street, W.1. Phone: Welbeck 9808.

★ News from the Clubs

FINCHLEY A.C.S.

(Hon. Sec. : L. H. S. Baxter, 27, Lullington Garth, Woodside Park, N.12.)

At the first post-war meeting held some two months ago it was unanimously agreed to resume activities as soon as possible and plans are now being worked out to this end. By the time this notice appears the Hon. Sec. will probably be in a position to advise interested prospective members of the form these activities will take.

HYDE C.S.

(Hon. Sec. : G. Wain, F.R.P.S., 170, Dowson Road, Hyde, Ches.)

Formed in 1934, the Society has functioned without a break until the present time. 9.5mm. equipment has largely been superseded by 16mm. and colour film has almost replaced black and white in popularity. Lectures and demonstrations are planned largely from the point of view of the beginner, and the fortnightly meetings are well attended.

Several short films are scheduled for early production. They are to be made on spools of "unwanted" black and white film kindly presented to the Society by various members.

ISLE OF WIGHT A.C.S.

(Joint Hon. Sec. : R. E. Hannam, 1, Queen's Cottages, Old Road, Cowes, I.W.)

Mr. Hannam reports the discovery of some rolls of Biokam film dating from 1899. He was handed them by a Cowes Council employee who found them among some refuse. They were eventually forwarded to the R.P.S., which was able to identify them, although no reference could be found to them in any encyclopaedias or books on cinematography.

The films, which are in good condition, are in 25ft. rolls, are 17mm. wide and perforated in the centre, like 9.5mm. The shots are of street scenes, trains and animals. One of the rolls has been retained by the R.P.S. for its museum.

LEDBURY AMATEUR CINE & DRAMATIC SOCIETY

(Hon. Sec. : L. J. Somers Smith, Newbury Park, Ledbury, Herefordshire.)

This society, which managed to keep going through the war, largely through its Dramatic Section and the keenness of its officers, is now making arrangements to produce its first post-war film, "The Shadow of the Ragged Stone". It will be in Kodachrome.

Ledbury will be glad to hear from anyone having any pre-war amateur films available for hire and offers its own in return.

NORTH KENT CINE CLUB

(Secretary : A. Stanton, 42, Springhead Road, Eltham.)

Plans are being made to go into production on a club film now that film stock is becoming available.

Since its formation six months ago, the membership has reached a total of 23. At the club headquarters at Sidcup Cine Service, 246, Blackfen Road, Sidcup, there is a completely equipped Projection theatre and also Sound Recording equipment.

Visitors and new members are cordially welcomed to the club meetings on alternate Mondays from June 24th.

PLANET FILM SOCIETY

(Hon. Sec. : H. Roger Dale, 48, Langbourne Mansions, Highgate, N.6.)

Many readers will remember the Planet A.C.S. of pre-war days.

The title of the re-formed Society indicates a widening of its scope, its main object being "the assembling monthly for screening sound and silent 16mm. films". This side of the Society's work is looked after by the Film Appreciation Section, formed for the purpose of studying the art and history of the cinema.

The amateur Film Production Section under Mr. Hugh Baddeley carries on the work of the old Planet A.C.S., and meetings to discuss policy and methods of working have already been held. There are vacancies for a considerable number of new members in both Sections.

ROMFORD & DISTRICT C.S.

(Hon. Treas. : L. A. Aves, 5, Allandale Road, Romford.)

Many old members, as well as newcomers attended the Society's first post-war meeting. Activities have been resumed, and regular fortnightly meetings instituted. Membership continues to grow, and a start has already been made on producing documentary. For the time being, enquiries should be addressed as above. All amateurs working in any gauge are welcomed.

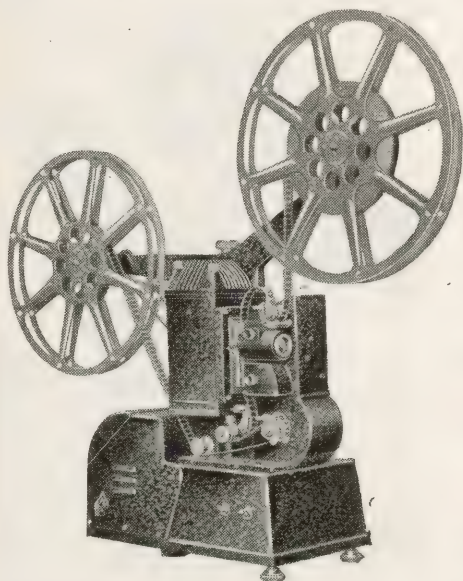
SALFORD C.S.

(Hon. Sec. : A. C. Smith, 20, Sandymeade, Prestwich, Nr. Manchester.)

The Society's A.G.M., held on April 25th at Rolls Restaurant, Manchester, signalled the successful conclusion of the first post-war season.

In spite of shortage of film stock it has been decided to try to shoot a 16mm. and a

(Continued on page 402)



We illustrate here the new 16mm. Supersound talkie available in due course through your dealer.

The following are brief advance details:—Constructed throughout from hardened aluminium alloy castings combining robustness with light weight. Specially designed optical system combined with 500 watt lamp gives brilliant illumination sufficient for all purposes.

High gain quality amplifier giving 12 watts sound output.

Price to be announced.

Please note all enquiries for above, also sound film library (9.5mm.), lists of conversion supplies, and complete conversions to our address at

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Read these booklets and adapt YOUR silent machine to sound.

"Practical Sound Conversion for Amateurs," 5/6 post paid.

"Converting the Kodascope 'C' to Sound," 3/6 post paid.

"Adapting the 200B to Sound," 3/- post paid. (11/6 all three.)

CONVERSION LAYOUT BLUEPRINTS (Size 30" x 20" approx.) For Paillard "G," Bolex DA, Pathe "H," Specto. Each print 4/6, or 15/- for all four. Systems shown can be applied to any model of similar build.

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Size	Silver	Beaded
30"x22"	£1 7 6	£2 4 6
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72"x54"	£5 17 6	£8 2 6
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96"x72"	£9 17 6	£12 12 0
108"x81"	£13 7 6	—
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Size	Best Silver	Best Beaded
36"x27"	£3 16 6	£4 3 6
40"x30"	£4 13 6	£5 3 6
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POST-WAR REVIEW

(Continued from page 375)

has recently made its appearance in America in the Dejur 8, which has a 400ft. film capacity.)

The trend towards greater illumination is doubtless a reflection of the growing commercial use of 16mm., but it is one which we view with some misgiving so far as the amateur market is concerned, for occasion for its effective use must necessarily be limited.

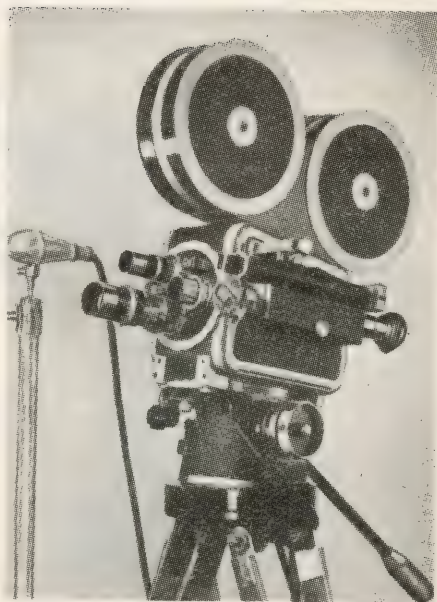
Very little of the apparatus mentioned is available in any quantity, and some of it is not yet on the market at all; but at least the French amateur is given definite information as to what he can expect, while his British colleague must be content to wait. It is not surprising, therefore, that the former should already be flourishing, that the S.C.A. should have to take a hall seating 350 for its shows and give repeat performances each month, that the S.P.A.F. should be able to hold frequent meetings in a theatre seating 250.

It is to be hoped that the cine movement in this country will rapidly attain to a similar degree of organisation that will facilitate a closer co-operation between our two countries than has been possible in the past. We should like to see regular interchanges of films and reciprocal visits to help us to get to know better the people who make them, to understand their problems and points of view and to share experience.

That is the bright side of the picture. The rest of Europe is less happily placed. In Holland, for example, there is practically no film stock for amateur use, and at the time of writing no one seems to know when it will be available. And even when it does come on the market again, says a writer in "Het Veerwerk," the Dutch substandard film magazine, "the question is, shall we be able to afford it?"

But that has not deterred them from resuming club activities and re-organising the Smallfilm League. Naturally, the projection aspect is the most prominent at the moment, and complaint is made of the difficulty of selecting programmes when the libraries provide little more than the titles of films to go on.

Another matter that is bothering the League concerns membership. The rules permit of only one cine organisation in any town being admitted. To allow more would raise administrative difficulties since the parent society apparently exercises more direct control than does, for example, the Federation of Cinematograph Societies in this country. Nor are cine sections of



The new 16mm. 'Sonoretta' Sound Camera, recently demonstrated to the R.P.S. Kine Group (See this column).

photographic clubs eligible, and there is no form of contract with the film societies specialising in exhibitions of theatrical films. (We are very glad to note, in this connection, a move on the part of clubs over here for collaboration with film societies. Reports of two new societies catering for both film makers and film students appear in this issue.)

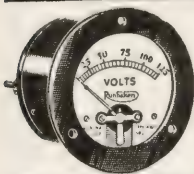
Dutch amateurs are proud of having had the first opportunity of seeing the new 16mm. sound camera, the Sonoretta, which, though the invention of a Hungarian, George Bakos, was built by a Dutch engineer. It was demonstrated to the R.P.S. recently. It will take pictures and sound on the same film, and also on separate films, the coupled drive for picture and sound negatives being automatically synchronised; a hand lever uncouples it without the necessity of removing the film. The double magazine contains two 120mm. of film.

There are three coupled lenses in the revolving turret and two view-finders, one of which follows 35mm. practice in that focussing is carried out on the film itself.

The camera is electrically driven, the motor being suspended beneath it.

The apparatus is carried in two cases and total weight is about 50lbs.

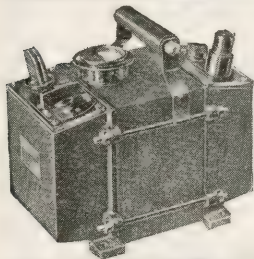
CINEMETER



100/115 Volts A.C., D.C. and 200/250 volts A.C., D.C. This easily fitted Voltmeter shows exact mains voltage A.C. or D.C. Greatly increases life of projector lamp by avoiding over-running.

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Varivolt Cine Transformer doubles or trebles the life of projector lamp. Avoids over-running. Voltage regulated as required. Suits Bell and Howell, G.B., Amprosoud and most equipment.

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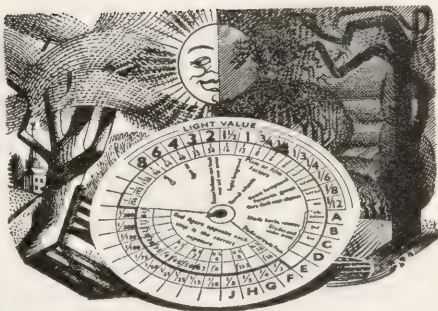
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Dependability

The 'Wellcome' Photographic Exposure Calculator was born some forty-five years ago when a plate having a speed of 20° Scheiner was labelled "Lightning" and when $f5.6$ was regarded as a wide aperture and $f4$ a luxury. Cinematography was still battling with its teething troubles and it is doubtful whether amateur cinematography had even been thought of.

The principle on which the Calculator was based, however, was so sound that to keep it always up-to-date, only progressive extensions of the scales to provide for increasing emulsion speeds and wider lens apertures have been necessary. The most recent improvement has been the inclusion of pointers to indicate exposure apertures in cinematography — both silent and sound. The 'Wellcome' Photographic Exposure Calculator is the chief feature of

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BIRDS IN COLOUR

HAPPY the man who can harness two hobbies to the mutual profit of both and the greater satisfaction in each. When Walter Higham, author of "Birds in Colour" (Collins, 25s.), was a small boy he was given a five shilling box camera the use of which nurtured a keen interest in photography that has never left him and which has enabled him to get the greatest possible pleasure from his other enthusiasm, ornithology.

But the amateur movie-maker who is fired by the possibilities of this pleasant alliance and its result in the making of this beautiful book, would do well to read Chapter 7 very carefully, for there is a significant difference between the naturalist-photographer and the photographer-naturalist.

A cuckoo caught in the very commission of her crime, for instance, is surely enthralling cine material, but how is one ever to film it without wide knowledge and experience in bird lore, and a store of endless patience? In point of fact, a few days before reading this book we were solemnly assured that no one had ever seen a cuckoo lay an egg in another bird's nest, and that the generally accepted theory was that she laid it on the ground and carried it to the nest in her beak.

Mr. Higham has effectively disposed of this theory by taking a complete film of the whole business. The first difficulty to be overcome was to find the cuckoo and to know where and when she was likely to lay. For its solution he had the help of a friend whose employment gave him access to a large quarry to which he had tracked the bird.

"During the next week or ten days, he said, he would find all the nests in the quarry that the cuckoo might use. By doing this, he said he could tell by the actions of the cuckoo, when she arrived, which nest she had in mind for her egg-laying. 'As soon as I know this I will get in touch with you,' he said, 'and keep her off the nest until you arrive.' His theory was that if the bird did not get a chance of laying her egg on the day she was disturbed, she would not return the following day but the day after."

The author felt that his friend was somewhat

over-optimistic and thought little more of the matter. Then one day, on arriving at his village station, he was greeted by the station-master with an urgent message: the cuckoo was about to lay! It was nearly five o'clock, he had no apparatus with him and his home was a mile away. But he succeeded in rushing his cine camera, 'hide' and tripod to the quarry, and had set them up less than five minutes when the cuckoo advanced to the nest, in a matter of seconds laid her egg and flew off with one of the foster-parent's eggs in her beak. Later he was able to record the young cuckoo ejecting the baby pips from the nest and the strenuous efforts of the foster-parents to feed it.

Mr. Higham uses both still and cine cameras, his favourite cine camera being the Kodak Special, which he prefers not only because it is at present the best of its class but also on account of its reflex focussing device. His lenses range from a 15mm. to a 6in.

In a very useful chapter, *The Technique of Bird Photography*, he explains their use in the exacting conditions under which he works. For instance, a lens hood was necessary not alone for keeping out extraneous light but also for lessening the risk of the bird being frightened off by seeing its own reflection.

In the following chapter, *Bird Portraits*, he explains the principles of Kodachrome, which stock he uses practically exclusively, and describes how he made many of his most effective shots. Chapter 3, *Birds and Travel*, continues the story overseas. Of more immediate interest to the photographer is the chapter on *Birds in the Garden*.

"Birds in Colour" is a delightful example of book production—certainly one of the most pleasant to handle and look at that we have seen for a long time, a veritable swan among the ugly ducklings of the Book Production War Economy Standard; and its price, though high, is justified by the 89 colour plates, all from the author's own Kodachrome film, 35mm., 16mm. and 4½ by 3¼ in. cut films. The best of them are strikingly beautiful and, in our view, must be ranked among the finest colour book reproductions to date.

NEWS FROM THE SOCIETIES (Continued from page 398)

9.5mm. production this summer. The winter season is due to begin on Oct. 7th at 7.30 p.m. at the Manchester Geographical Hall, St. Mary's Parsonage, Manchester 3, where meetings will be held fortnightly throughout the winter.

TORBAY C.S.

(Hon. Gen. Sec.: E. Woolley, 11, Dendy Road, Paignton.)

A primary aim of this new Society, is not only to encourage amateur cinematography but to cater for both amateur and professional enthusiasts interested in technical or artistic aspects of films. And one of its functions will be to arrange showings of outstanding foreign films not normally screened in the commercial cinema.

It is hoped to arrange a programme which will meet the requirements of enthusiasts concerned with the viewing and study of "classic" and specialised films (a function usually handled by a film society) and to satisfy those interested mainly in technical matters.

SOUTHALL & DISTRICT P.S.
(Cine Section)

(Hon. Sec.: R. Hurren, 82, Ranelagh Road, Southall, Middx.)

The Southall Cine Club, suspended during the war, has now been re-formed and united with the Southall Photographic Society, several members having returned from the Forces and new ones having been enrolled. The first meeting was a distinct success. Users of all gauges will be catered for.

WANSTEAD & WOODFORD C.C.

(Hon. Sec.: S. F. Martin, 134, Malford Grove, Snarebrook, Essex.)

The Spring issue of "Movienews," the Club's quarterly journal, lists 25 films entered for the 1946 competition—7 in 16mm. colour, 5 in 8mm. colour and the rest in 8mm., 9.5mm. and 16mm. monochrome.

Recent meetings were addressed by C. L. Clarke of Kodak and George H. Sewell. Other interesting meetings included a demonstration of "the smallest talkie outfit on the market."

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